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The Australian and Antarctic Perspective on Global Ocean Governance

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The Australian and Antarctic Perspective on Global Ocean Governance

Abstract

Australia with its lengthy coastline, vast maritime jurisdiction, and multiple offshore territories undoubtedly fits the description of a maritime nation with an important stake in global ocean governance. It is surrounded on all sides by oceans and seas including the world's largest ocean, the Pacific Ocean, the Indian Ocean, the Southern Ocean, the Tasman Sea, the Coral Sea, the Timor Sea, and the Arafura Sea. There are abundant living and non-living resources in Australia's coastal and marine areas many of which are largely untapped. Maritime security is a prominent concern for Australia given its geographic position to the south of major international shipping routes and the rising incidence of transnational criminal activities such as people smuggling and illegal fishing in its northern approaches. It has engaged with the global oceans agenda through ratifying and implementing in its national law and policy, key international law instruments such as the 1982 United Nations Convention on the Law of the Sea (LOS), 1 the United Nations Fish Stocks Agreement, 2 multiple regional fisheries management agreements and regional seas agreements as well as the majority of International Maritime Organization agreements. It is also an active supporter of global and regional initiatives to protect and sustainably use marine biodiversity such as the Biodiversity Beyond National Jurisdiction Process, Sustainable Development Goal 14 on the oceans, the Pacific Oceanscape initiative, and the Coral Triangle Initiative.

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The Australian and Antarctic Perspective on Global Ocean Governance

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Introduction

Australia with its lengthy coastline, vast maritime jurisdiction and multiple offshore territories undoubtedly fits the description of a maritime nation with an important stake in global ocean governance. It is surrounded on all sides by oceans and seas including the world's largest ocean, the Pacific Ocean, the Indian Ocean, the Southern Ocean, the Tasman Sea, the Coral Sea, the Timor Sea and the Arafura Sea. There are abundant living and non-living resources in Australia's coastal and marine areas many of which are largely untapped. Maritime security is a prominent concern for Australia given its geographic position to the south of major international shipping routes and the rising incidence of transnational criminal activities such as people smuggling and illegal fishing in its northern approaches. It has engaged with the global oceans agenda through ratifying and implementing in its national law and policy, key international law instruments such as the 1982 United Nations Convention on the Law of the Sea (LOSC)¹, the United Nations Fish Stocks Agreement², multiple regional fisheries management agreements and regional seas agreements as well as the majority of IMO agreements. It is also an active supporter of global and regional initiatives to protect and sustainably use marine biodiversity such as the BBNJ Process, SDG 14 on the oceans, the Pacific Oceanscape initiative and the Coral Triangle Initiative.

Although the Antarctic Treaty system has developed separately from the global oceans agenda, many of its elements particularly the provisions of the Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) are consistent with international marine environmental law principles such as the ecosystem and precautionary approaches which are encompassed in contemporary global ocean governance. The Antarctic Treaty preceded the negotiation of the LOSC and there are a number of areas in which the relationship of the two treaties is distinctly ambiguous. At the apex of the Antarctic Treaty system is the 1959 Antarctic Treaty which establishes the geographical boundaries and

¹ 1982 United Nations Convention on the Law of the Sea (LOSC) 1833 UNTS 3.

² 1995 Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation of Straddling Fish Stocks and Highly Migratory Fish Stocks 2167 UNTS 3.

political conditions under which the Antarctic Treaty partners operate.³ Article VI of the Treaty specifies that its provisions shall apply to the area south of 60 degrees south latitude including all ice shelves. The area below this boundary is reserved for peaceful purposes and cooperative scientific investigation.⁴ The territorial claims of the Parties are frozen under Article IV of the Treaty with the provision that no acts or activities taking place while the Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica. Article IV provides further that no new claims or enlargements of existing claims to territorial sovereignty are to be asserted while the treaty is in force. The Treaty explicitly recognises the existence of high seas in the Antarctic Treaty area by providing that nothing in the Treaty shall prejudice or in any way affect the rights of any States under international law with regard to the high seas within the Antarctic Area.⁵ The precise limits of marine areas beyond national jurisdiction in the Antarctic Treaty area are difficult to define as the Parties views differ on territorial sovereignty and the associated maritime claims to territorial seas, exclusive economic zones and continental shelves.

Law and Policy Framework for Ocean Governance

Australia

It was not until the issue of Australia's Oceans Policy in 1998 that a comprehensive statement of Australia's ocean governance challenges and priorities emerged at the Federal Government level.⁶ The Oceans Policy articulated a wide array of challenges and priorities relating to Australia's maritime interests including the conservation of marine biodiversity, the maintenance of ecologically sustainable fisheries, the prevention of marine pollution, the development of the offshore petroleum and minerals industry, the definition of Australia's maritime jurisdiction and the protection of Australia's national interests both within and beyond Australian maritime jurisdiction.⁷ Many of these priorities and challenges correlate with elements of the global oceans agenda including the conservation and sustainable use of marine resources and biodiversity, integrated and ecosystem based oceans management and the maintenance of global and regional maritime security. To tackle all these challenges and priorities in a balanced and effective manner, the Oceans Policy identified the need for

³ 1959 Antarctic Treaty 402 UNTS 71.

⁴ Ibid, Arts I and II.

⁵ Ibid, Art.VI

⁶ Commonwealth of Australia, *Australia's Oceans Policy* (Canberra: Environment Australia, 1998), p. 9, available online at <http://www.environment.gov.au/coasts/oceans-policy/publications/pubs/policyv1.pdf>

⁷ Ibid.

integrated ocean planning and management and nominated specific responses for particular sectors of ocean activity. Nineteen years on from the Oceans Policy, the maritime challenges and priorities identified in that document still resonate with the global oceans agenda. This report examines a selection of those maritime challenges and priorities, and how Australia has responded to them.

Australia's Oceans Policy had the ambitious objective of setting in place the framework for integrated and ecosystem based planning and management for all of Australia's marine jurisdictions which would be implemented through the development of Regional Marine Plans based on large marine ecosystems and intended to be binding on all Commonwealth agencies with responsibilities in the marine environment. It set out broad goals for the care, understanding and use of Australia's oceans. These included:

- The exercise and protection of Australia's rights and jurisdiction over offshore areas, including offshore resources;
- Meeting Australia's international obligations under the United Nations Convention on the Law of the Sea (LOSC) and other international treaties;
- Understanding and protecting Australia's marine biological diversity, the ocean environment and its resources and ensuring ocean uses are ecologically sustainable;
- Promoting ecologically sustainable economic development and job creation;
- Establishing integrated oceans planning and management arrangements;
- Accommodating community needs and aspirations;
- Improving Australia's expertise and capabilities in ocean related management, science, technology and engineering;
- Identifying and protecting Australia's natural and cultural marine heritage; and
- Promoting public awareness and understanding of the oceans.⁸

⁸ *Oceans Policy*, Vol 1, p. 6.

While the overarching vision of integrated oceans management for Australia's offshore marine environment has been modified since the issue of the Oceans Policy, the Policy did perform the important initial function of expounding the major maritime challenges confronting Australia in twenty areas of oceans planning and management together with proposed responses and there has been no similar comprehensive statement of oceans policy since its issue.⁹ It identified the need for specific action under several broad headings including ocean uses and impacts, protecting national interests and understanding the oceans.

The second volume of Australia's Oceans Policy enumerated measures to address Australia's maritime challenges in specific sectors of ocean activity under the broad headings identified in the first volume of the Policy. Governmental responses to Australia's maritime challenges since the Oceans Policy have tended to occur within specific sectors of ocean activity rather than being prompted by the regional marine planning process initiated by the Oceans Policy or its successor, the marine bioregional planning process which has now being implemented through a system of marine reserves under the Environment Protection and Biodiversity Conservation Act, 1999.¹⁰ While some sectors have adopted a more integrated approach to oceans management, cross sectoral cooperation in oceans management is still developing within Australia's maritime jurisdiction. Subsequent sections of this report will analyse some key challenges identified in Australia's Oceans Policy which are related to global ocean governance and recent developments in addressing them.

Defining and Describing Australia's Maritime Jurisdiction

Critical factors in managing Australia's offshore areas are defining clearly the extent of Australia's maritime jurisdiction and understanding the physical nature of the marine areas under Australian jurisdiction. The Oceans Policy characterised this challenge as defining, describing and documenting the physical, geological and chemical attributes of the marine areas under Australian jurisdiction, including the continental shelf and the physical and chemical structure of the adjacent oceans.¹¹ Australia ratified the LOSC in 1994 assuming a wide range of international legal obligations in relation to its offshore areas. One of the major achievements of the LOSC was to provide clearly defined maximum limits for offshore jurisdictional zones including the territorial sea, contiguous zone, exclusive economic zone

⁹ Ibid, Vol. 2, p. 29.

¹⁰ See the description of Marine Bioregional Planning, <http://www.environment.gov.au/coasts/mbp/index.htm> which has replaced the original concept of Regional Marine Plans set out in the *Oceans Policy*.

¹¹ *Oceans Policy*, Vol. 2, p.29.

and continental shelf. Australia had already claimed a twelve nautical mile territorial sea in 1990 and a continental shelf based on earlier criteria in the 1958 Geneva Convention on the Continental Shelf.¹² In 1994 Australia claimed a contiguous zone adjacent to its territorial sea out to the maximum limit of 24 nautical miles provided for in the LOSC.¹³ Australia's exclusive economic zone was also proclaimed in 1994 out to the maximum limit provided for in the LOSC of 200 nautical miles from the territorial sea baseline.¹⁴

The Oceans Policy noted that technical advice and information on mapping, seafloor morphology, geology and resource potential were required to support Australia's claim for a legal continental shelf extending beyond the exclusive economic zone under the provisions of the LOSC and also to support Australia's negotiations on maritime boundaries with adjacent countries.¹⁵ GeoScience Australia and its predecessor agencies, Australian Geological Survey Organisation (AGSO) and the Australian Survey and Land Information Group (AUSLIG) have continued to meet this challenge as evidenced by the endorsement of Australia's recommendations for the outer limits of nine of the ten areas of its extended continental shelf claim by the Commission on the Limits of the Continental Shelf (CLCS) in April 2008¹⁶ and successful maritime delimitation negotiations with New Zealand in 2004 since the Oceans Policy was issued.¹⁷ The scientific data gathered by agencies such as GeoScience Australia on the physical, geological, oceanographic and chemical aspects of the water column and the seabed has also been vital in meeting other challenges within Australia's marine areas such as conservation of marine biodiversity, ecologically sustainable fisheries exploitation and the development of Australia's offshore petroleum and minerals industry.

Managing Rights and Responsibilities on Australia's Extended Continental Shelf

¹² G. Evans and M. Duffy, 'Australia Extends Territorial Sea', *Australian Foreign Affairs and Trade* (November 1990), p. 816; R.D. Lumb, 'Australian Coastal Jurisdiction' in K.W. Ryan (ed.), *International Law in Australia*, 2nd edition (North Ryde, NSW: Law Book Co., 1984); M. Landale and H. Burmester, 'Australia and the Law of the Sea: Offshore Jurisdiction' in *Ibid.*

¹³ D.R. Rothwell, 'The Legal Framework for Ocean and Coastal Management in Australia', *Ocean and Coastal Management*, 33 (1) (1996), p. 41.

¹⁴ *Ibid.*

¹⁵ *Oceans Policy*, Vol 2, p. 29.

¹⁶ Commission on the Limits of the Continental Shelf, *Statement by the Chairman on the Limits of the Continental Shelf on the progress of the work of the Commission – Twenty First Session*, UN Doc CLCS/58, http://www.un.org/Depts/los/clcs_new/commission_documents.htm#Statements%20by%20the%20Chairman%20of%20the%20Commission, 25 April 2008.

¹⁷ 2004 Treaty between the Government of Australia and the Government of New Zealand establishing Certain Exclusive Economic Zone and Continental Shelf Boundaries, ATS 4.

Sustainable management of Australia's extended continental shelf will present enormous challenges and will also entail Australia balancing its own interests in the resources of the extended continental shelf and the global oceans governance agenda. The extended continental shelf, located beyond 200 nautical miles (up to a maximum of 350 nautical miles or 100 nautical miles from the 2500 metre isobath) from the coast of Australia and its offshore territories encompasses an area of 2.56 million square kilometres or around a third of the land mass of continental Australia.¹⁸ Extended continental shelf areas contain a cornucopia of non-living resources with the most obvious being seabed oil and gas but also including manganese nodules, polymetallic sulphides, gas hydrates and phosphorates.¹⁹ There are also valuable living resources on the shelf including sedentary species such as trochus shell and beche de mer (sea cucumber).²⁰ The relatively shallow depths of many parts of the extended continental shelf make exploitation of the living resources practical and attractive to authorised and illegal fishers. Valuable marine genetic resources with proven medical, pharmaceutical and industrial benefits have also been discovered at seabed features such as hydrothermal vents and cold seeps and are already supporting a thriving international bio-prospecting industry.²¹ All areas of Australia's extended continental shelf lie far beyond its territorial sea limit of 12 nautical miles beneath vast tracts of high seas water column. Under the relevant provisions of the LOSC, Australia's exploitation of the extended continental shelf must not infringe or interfere with navigation and the other rights enjoyed by the global community in these areas.²² The siting of installations to drill for hydrocarbons or mine seabed minerals on the extended continental shelf will need to take account of established shipping routes in the area, the location of submarine cables and pipelines and the existence of equipment related to marine scientific research on the seabed. The potential for disputes arising between Australia and other States with interests in the water column above Australian extended continental shelf exploitation sites cannot be discounted and will have to be factored into investment decisions.

¹⁸ Geoscience Australia, *Find out More about Law of the Sea*, http://www.ga.gov.au/oceans/mc_los_More.jsp

¹⁹ Bramley J. Murton, 'A global review of non-living resources on the extended continental shelf', *Revista Brasileira de Geofisica* 18 (3) (2000), http://www.scielo.br/scielo.php?pid=S0102-261X2000000300007&script=sci_arttext&

²⁰ Justin Healey (ed.), *Marine Conservation: Issues in Society*, Vol 297 (Thirroul, NSW: The Spinney Press, 2009), Chapter 1.

²¹ Joanna Mossop, 'Protecting Marine Biodiversity on the Continental Shelf', *Ocean Development and International Law*, 38 (3) (2007), pp. 284-285.

²² LOSC, Article 78(2).

Investors in exploitation activities on the extended continental shelf also face the prospect of some of their profits being surrendered because Australia is obliged to make annual payments or contributions in kind for all production at an extended continental shelf site after the first five years of production at that site.²³ The payments are made to the International Seabed Authority (ISA), the supranational body established under the LOSC to administer the exploitation of deep seabed minerals beyond national jurisdiction. The ISA will distribute payments to States which have ratified the LOSC, taking into account the interests and needs of developing States.²⁴ The proportion of profits to be remitted to the ISA is not inconsiderable, commencing at 1% of the value or volume of production at the site in the sixth year of production and increasing by 1% for each subsequent year until the twelfth year of production and remaining at 7% in subsequent years.²⁵

There will be significant logistical and security challenges involved in establishing and protecting exploitation activities on Australia's extended continental shelf. Offshore installations located in remote extended continental shelf areas could be vulnerable to attack by terrorists and more susceptible to the severe weather events that are predicted in connection with climate change. Illegal exploitation of Australia's extended continental shelf resources is a real threat. To counter this threat more surveillance and enforcement patrols will be necessary. Australia has limited resources to conduct comprehensive surveillance and monitoring of its exclusive economic zone out to 200 nautical miles from its coastline let alone scanning activities occurring beyond this limit.²⁶ Experience garnered from enforcing Australia's fisheries legislation in waters surrounding remote offshore territories such as Heard and McDonald Islands foreshadows some of the jurisdictional dilemmas and practical difficulties which may be encountered by maritime enforcement units. Two foreign vessels suspected of illegal fishing in these remote waters were only apprehended in waters south of South Africa after lengthy hot pursuits across thousands of miles of ocean.²⁷ In addition, the extended continental shelf areas around Heard and McDonald Islands fall within the Antarctic Treaty area and enforcement units in these areas will be subject to the stringent

²³ LOSC, Article 82(1).

²⁴ LOSC, Article 82(4).

²⁵ LOSC, Article 82(2).

²⁶ Clive Schofield, Martin Tsamenyi and Mary Ann Palma, 'Securing Maritime Australia: Developments in Maritime Surveillance and Security', *Ocean Development and International Law*, 39 (1) (2008), p. 94.

²⁷ E.J. Molenaar, 'Multilateral Hot Pursuit and Illegal Fishing in the Southern Ocean: The Pursuits of the Viarsa I and the South Tomi', *International Journal of Marine and Coastal Law*, 19 (1) (2004), pp. 19-42; Warwick Gullett and Clive Schofield, 'Pushing the Limits of the Law of the Sea Convention: Australian and French Cooperative Surveillance and Enforcement in the Southern Ocean', *The International Journal of Marine and Coastal Law*, 22 (4) (2007), p. 551.

environmental protection provisions of the Environmental Protection Protocol to the Antarctic Treaty discussed below.²⁸ Distinguishing between legitimate marine scientific research activities conducted from foreign vessels on Australia's extended continental shelf and illegal foreign bio-prospecting for marine genetic resources will be an ongoing enforcement challenge because the two activities are closely intertwined.²⁹

Other global governance imperatives related to the protection of the high seas marine environment and its biodiversity are relevant to extended continental shelf areas. The international community is in the process of developing the elements of an international legally binding instrument to conserve and sustainably use marine biodiversity in areas beyond national jurisdiction under a UNGA mandate. In its resolution 69/292 of 19 June 2015, the General Assembly decided to develop an international legally binding instrument under the LOSC the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction.³⁰ These elements encompass area based management tools including MPAs, environmental impact assessment, access to and distribution of the benefits of marine genetic resources in ABNJ and transfer of technology and capacity building in all these areas. The introduction of biodiversity conservation measures in extended continental shelf areas may impose some constraints on resource exploitation. Policy makers, scientists and industry players eager to explore and take advantage of the potential resource bounty on Australia's extended continental shelf will have to come to terms with operating in a complex environment influenced by both national legislation and global ocean governance developments.

²⁸ Julia Jabour, 'The Australian continental shelf: Has Australia's high latitude diplomacy paid off?' *Marine Policy* 33, (2) (2009), p. 431.

²⁹ D. Farrier and L. Tucker, 'Hitching the Conservation Cart to the Bioprospecting Horse' *Ocean Development and International Law*, 32 (3) (2001), pp. 213-14 defines bioprospecting as "the collection of small samples of biological material for screening in search for commercially exploitable biologically active compounds or attributes such as genetic information."

³⁰ The United Nations Ad Hoc Open-ended Informal Working Group to study issues relating to the conservation and sustainable use of marine biological diversity beyond areas of national jurisdiction met in 2006, 2008, 2010, 2011, 2013, 2014 and twice in 2015. The Reports of the Co-Chairpersons are available at <http://www.un.org/Depts/los/biodiversityworkinggroup/biodiversityworkinggroup.htm>; The Preparatory Committee developing the elements for an international legally binding instrument on conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction has met twice in 2016 and will meet twice in 2017. The summaries of the Chair of the Preparatory Committee for the first and second meetings in 2016 are available at <http://www.un.org/Depts/los/biodiversity/prepcom.htm>; Rosemary Rayfuse and Robin Warner, 'Securing a Sustainable Future for the Oceans Beyond National Jurisdiction: The Legal Basis for an Integrated, Cross-Sectoral Regime for High Seas Governance for the 21st Century', 23(3) *The International Journal for Marine and Coastal Law*, 23 (3) (2008), pp. 403-407.

Australia's Engagement with Regional Initiatives to Conserve and Sustainably Use Marine Biodiversity

Australia has been an active member of the framework Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (Noumea Convention), which was negotiated in 1986.³¹ It commits its Parties to prevent, reduce and control pollution of the Convention Area from any source and to ensure sound environmental management of natural resources.³² The Convention area is defined as the 200 nautical mile zones established off the coasts of its 21 regional parties as well as those areas of the high seas which are enclosed from all sides by these 200 nautical mile zones.³³ The region is characterised by vast tracts of ocean space dotted with land masses which range from sizeable island nations such as Australia and New Zealand to tiny dependencies such as the Pitcairn Islands.³⁴ The majority of small islands in the South Pacific region have land areas under 700 square kilometres and are heavily dependent on a healthy marine environment for their survival.³⁵ The region has one of the highest quotients of biodiversity in the world with a large population of rare and endangered species such as dugongs, sea turtles and whales.³⁶ This cornucopia of biodiversity is subject to multiple stress factors including population growth, natural disasters, unsustainable fisheries practices and alien species invasion.³⁷

Many of the small island nations in the region are still in dependent associations with other States or have only attained independence in recent decades.³⁸ Their capacity to manage environmental protection programmes is severely limited and much of the funding and technical expertise for SPREP projects is provided by the developed countries in the region particularly Australia and New Zealand and from other sources of international aid.³⁹ While the extent of ocean space under SPREP's environmental domain far outweighs the terrestrial

³¹ 1986 Convention for the Protection of the Natural Resources and Environment of the South Pacific Region (1987) 26 ILM 41.

³² Noumea Convention, Art. 5(1).

³³ Ibid, Art. 2(a)(i) and (ii).

³⁴ Richard Herr, "Environmental Protection in the South Pacific: The Effectiveness of SPREP and its Conventions" in Olav S. Stokke and O. B. Thommessen (eds.), *Yearbook of International Cooperation on Environment and Development 2002/3* (Earthscan Publications Ltd., London, 2002), pp.41-43; South Pacific Regional Environmental Programme (SPREP), Nature Conservation. <http://www.sprep.org/topic/NatCons.htm> at 14 April 2008.

³⁵ Tamari'I Tutangata and Mary Power, "The Regional Scale of Ocean Governance: Regional Cooperation in the Pacific Islands" (2002) 45(11) *Ocean and Coastal Management* p. 873.

³⁶ SPREP, *Biodiversity in the Pacific Islands*, <http://www.sprep.org/topic/Biodiv.htm>

³⁷ Ibid; Tutangata and Power, above note 35, p.875.

³⁸ Herr, above note 34, p.43.

³⁹ Ibid, pp.43-44; Tutangata and Power, above note 35, pp. 879-880.

component of its responsibilities, the underdeveloped status of many of the region's economies has directed environmental priorities towards land based projects.⁴⁰ The region also faces the externally imposed threat of sea level rise associated with global warming.⁴¹ The exclusive economic zones and high seas areas of the region host some of the world's largest stocks of tuna which have been subject to exploitation by distant water fishing States.⁴² The South Pacific also contains a variety of vulnerable marine habitats such as hydrothermal vents, some of the world's deepest ocean trenches and seamount environments rich in biodiversity many of which are in waters beyond national jurisdiction.⁴³

The Noumea Convention anticipates the collaboration of its Parties in protecting the marine environment of the whole Convention Area, including its high seas enclaves. Article 4 of the Convention provides that the Parties shall endeavour to conclude bilateral or multilateral agreements for the protection, development and management of the marine and coastal environment of the Convention Area. Other articles provide guidance on the range of environmental protection measures which might be included in such agreements. The majority of the Convention's articles address the prevention, reduction and control of pollution from a variety of sources and waste management.⁴⁴ Of particular relevance to the high seas areas within the Convention's geographic scope, are the articles urging the Parties to take all appropriate measures to prevent reduce and control pollution from vessels, seabed activities and the testing of nuclear devices.⁴⁵ Although the Noumea Convention pre-dates the 1992 Convention on Biological Diversity (CBD)⁴⁶ and its codification of biodiversity protection, Article 14 reflects some of the key concepts associated with an integrated and ecosystem based approach to oceans management in providing that Parties shall take all appropriate measures to protect and preserve rare and fragile ecosystems and depleted, threatened or endangered flora and fauna as well as their habitat in the Convention Area. Article 14 also recommends that Parties establish protected areas and prohibit or regulate any activities likely to have adverse effects on the species, ecosystems or biological processes of such areas. The establishment of protected areas is not to affect the rights of other Parties to the Noumea Convention or third States under international law.

⁴⁰ GPA, South Pacific Region, <http://www.gpa.unep.org/seas/workshop/southpac.htm>

⁴¹ Ibid; Tutangata and Power, above note 35, p. 880.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Noumea Convention, Arts. 7-9,10 and 11.

⁴⁵ Noumea Convention, Arts. 6, 8 and 12.

⁴⁶ 1992 Convention on Biological Diversity, (1992) 31 ILM 822.

As well as being a party to the Noumea Convention and multiple regional fisheries management organizations within its immediate region and beyond, Australia provides ongoing support for a number of non-treaty based marine biodiversity conservation initiatives involving South East Asian and Pacific States. The Coral Triangle Initiative (CTI) is a multilateral partnership of six Pacific and South East Asian countries in Australia's immediate region, collaborating to conserve and sustainably manage marine and coastal resources by addressing critical issues such as food security, climate change and marine biodiversity.⁴⁷ The CTI member states are Indonesia, the Philippines, Malaysia, Papua New Guinea, Timor L'Este and the Solomon Islands. Australia is involved as a partner with CTI through the development branch of its Department of Foreign Affairs and Trade. The Coral Triangle **region** hosts the highest coral and reef fish diversity in the world with 600 corals or 76% of the world's known coral species. and 2,500 or 37% of the world's reef fish species concentrated in the area. It is also a spawning and nursery ground for six species of threatened marine turtles, endangered fish and cetaceans such as tuna and blue whales. The five goals of the CTI Regional Plan of Action are:

- Priority seascapes designated and effectively managed.
- Ecosystem Approach to Management of Fisheries (EAFM) and other marine resources fully applied.
- Marine Protected Areas (MPAs) established and effectively managed.
- Climate change adaptation measures achieved.
- Threatened species status improving

Australia has provided technical and strategic support to the CTI since its inception in 2007. It currently supports projects related to the development of nature based tourism across the Coral Triangle region, collaboration for multi-use, integrated planning of large marine areas across the Coral Triangle region, marine planning and sustainable use of marine resources in Papua New Guinea and coastal communities becoming effective stewards of their marine environment.⁴⁸

⁴⁷ Coral Triangle Initiative on Fisheries, Reefs and Food Security, About CTI-CFF, <http://coraltriangleinitiative.org/about-us>

⁴⁸ Department of the Environment and Energy, Coral Triangle Initiative, <http://www.environment.gov.au/marine/international-activities/coral-triangle-initiative>

Australia is also a member of the Pacific Oceanscape framework and the associated Pacific Ocean Alliance (POA)⁴⁹ formed in 2014 to enhance the sustainable development, management and conservation of Pacific Ocean marine resources and biodiversity. Partners in the POA include those from Pacific Island governments, regional institutions and organizations, non-governmental organizations and the private sector with varied interests including cultural, economic, fisheries, extractives, conservation and research. The POA is actively engaged in implementing key elements of the global ocean governance agenda including Sustainable Development Goal 14 on the oceans and the UNGA process to develop the elements of a new international legally binding instrument under the LOSC to conserve and sustainably use marine biodiversity in areas beyond national jurisdiction.⁵⁰

Australia's Engagement with Global and Regional Maritime Security

The protection of Australia's interests at sea is a multi-faceted challenge which ranges from preventing potential aggressors crossing Australia's maritime approaches and deterring criminal activity in Australian offshore zones to supporting regional and global security initiatives which help maintain freedom of use and access to the oceans for vessels worldwide. The Australian Defence Force (ADF) is the primary government organization responsible for meeting this challenge although other government agencies such as Customs, Australian Fisheries Management Agency (AFMA), Australian Border Force, Australian Quarantine Inspection Service, Australian Federal Police and state police services also contribute. The Oceans Policy listed projected responses to this challenge which have evolved in recent years as a result of specific threats such as the increase in people smuggling in Australia's northern sea approaches and illegal fishing to the north of Australia and in the offshore zones of its sub Antarctic islands in the Southern Ocean.⁵¹ Initiatives have been taken at national, regional and global levels to protect Australia's interests at sea.

⁴⁹ Conservation International, Pacific Ocean Alliance, <http://www.conservation.org/NewsRoom/pressreleases/Pages/Pacific-Ocean-Alliance-launched-to-strengthen-collaboration-under-the-Pacific-Oceanscape.aspx>

⁵⁰ Loop Pacific, Integrated Ocean Management Unites the Pacific, 5 November 2016, -strengthen-collaboration-under-the-Pacific-Oceanscape.aspx

⁵¹ *Oceans Policy*, Vol. 2, 37.

National Initiatives

One response highlighted in the Oceans Policy was a full contribution by the ADF to the National Surveillance Program managed by Coastwatch.⁵² This program, originally coordinated by Coastwatch and involving a range of Commonwealth Government agencies, has now been replaced by Australian Border Force. On 1 July 2015, the functions of the Department of Immigration and Border Protection and the Australian Customs and Border Protection Service were integrated into a new Department which draws on ADF and Customs assets to perform surveillance and enforcement tasks in Australia's offshore zones.⁵³ The Oceans Policy also foreshadowed the development of an integrated surveillance system combining all surveillance sources in a single system to provide continuous real-time, all weather detection and identification of aircraft and ships in Australia's maritime approaches.⁵⁴ The Australian Maritime Identification System (AMIS), introduced in February 2005, is an important component of this system with the objective of providing enhanced maritime domain awareness of shipping and other activity in Australia's offshore zones to the Australian Border Force.⁵⁵ AMIS operates through the phased request of positional information from non-Australian flagged vessels seeking to enter Australian ports. Up to 1000 nautical miles or 48 hours steaming time from the Australian coast, Australian authorities request advanced arrival information from International Ship and Port Security Code (ISPS) vessels whose next port of call is Australia. This information on ship identity, crew, cargo, location, course, speed and intended port of arrival is already collected for Australian Customs and ISPS purposes. Up to 500 nautical miles or 24 hours steaming time from Australia, information is sought on a voluntary basis on the identity, course and speed of vessels intending to transit Australia's exclusive economic zone (EEZ) or territorial sea.⁵⁶

The ability of Australia's maritime surveillance and enforcement resources to respond to illegal activity within Australia's offshore zones including illegal foreign fishing, customs and quarantine offences and drug trafficking has been further enhanced by the consolidation

⁵² Ibid, p. 38.

⁵³ Department of Immigration and Border Protection, About the Australian Border Force, <https://www.border.gov.au/australian-border-force-abf/who-we-are>

⁵⁴ *Oceans Policy*, Vol 2, 38.

⁵⁵ Department of Immigration and Border Protection, About the Australian Border Force, Australian Border Force Cape Class patrol Boats, <https://www.border.gov.au/AustralianBorderForce/Documents/Cape%20class%20patrol%20boat%20Factsheet.pdf#search=Australian%20Maritime%20Identification%20System>.

⁵⁶ Schofield et al, above note 26, pp. 103-104.

of maritime law enforcement powers in a single Commonwealth statute. The Maritime Powers Act which came into force in 2013 consolidates a wide array of maritime law enforcement powers contained in 38 separate pieces of Commonwealth legislation by:

- Establishing comprehensive powers on interdiction, boarding, search, seizure and retention of vessels;
- Ensuring a common enforcement approach to promote coordination between agencies;
- Creating a mechanism to implement and enforce international agreements that have a maritime aspect.⁵⁷

Regional and Global Initiatives

Collaboration with regional and global partners in implementing oceans management regimes was identified in the Oceans Policy as a key challenge and critical to protecting Australia's national interests at sea as well as those of the global community.⁵⁸ Since the Oceans Policy was issued, Australia has made considerable progress in establishing both ad hoc and ongoing cooperation arrangements with regional and global partners to combat criminal activity at sea. Examples of this are evident in the spheres of illegal foreign fishing, people smuggling and counter piracy operations.

Since 1997, the Australian Government has mounted a concerted challenge to foreign fishing vessels (FFVs) fishing illegally in the exclusive economic zone off its sub Antarctic territories, Heard and McDonald Islands. Addressing this challenge has entailed operational responses and legal developments which involve the broadest interpretation of the current international law framework for maritime law enforcement. The primary target species for illegal fishers in these waters has been the Patagonian toothfish. Australian fishermen began fishing for these species off Heard and McDonald Islands in 1997 and unlicensed FFVs were also operating in the area.⁵⁹ Most of these were registered in flag of convenience States which maintained very limited control over their activities.⁶⁰ Lucrative potential returns made these

⁵⁷ Australian Government, Federal Register of Legislation, Maritime Powers Act 2013, <https://www.legislation.gov.au/Details/C2013A00015>

⁵⁸ *Oceans Policy*, Vol 2, 38.

⁵⁹ Gullett et al, above note 27, p. 550.

⁶⁰ *Ibid.*

waters an attractive prospect for the FFVs. Initially enforcement was hampered by FFVs contacting each other to report on the location of enforcement vessels and the extreme weather conditions and long transit times for enforcement vessels to reach Heard and McDonald Islands.⁶¹

Strengthened bilateral cooperation has played an important role in addressing this significant maritime challenge. Australia and France concluded an agreement on cooperation in their adjacent exclusive economic zones in the Southern Ocean in 2003.⁶² The treaty provided a framework to enhance cooperative surveillance of FFVs in the neighbouring territorial seas and exclusive economic zones of Australia and France's sub Antarctic islands. It provides for the exchange of information about the location, movements and other details of vessels suspected of fishing illegally to facilitate operational responses, logistical support in the conduct of hot pursuits and the undertaking of cooperative research on marine living resources.⁶³ There is also provision for surveillance of each party's maritime zones with the consent of the relevant coastal State.⁶⁴ It establishes a consent regime allowing for the continuation of hot pursuit into the other party's territorial sea provided the other State is informed and no physical law enforcement or coercive action is taken against the pursued vessel during this phase of the hot pursuit.⁶⁵ Under the 2003 Treaty, practical cooperation has taken place with Australian customs and fisheries officers taking part in French patrols and French enforcement officials participating in Australian patrols. Cooperative activities have also included establishment of a shared register of FFVs licensed to fish in French and Australian waters and exchange of information on suspected illegal FFVs.⁶⁶

In 2007 Australia and France extended their cooperation with the conclusion of a further bilateral agreement on cooperative enforcement of fisheries laws in the maritime zones adjacent to their sub Antarctic islands.⁶⁷ The 2007 Treaty formalizes cooperative enforcement of the two States fisheries laws allowing each party's enforcement officers to apprehend

⁶¹ Ibid.

⁶² 2003 Treaty between the Government of Australia and the Government of the French Republic on Cooperation in the Maritime Areas adjacent to the French Southern and Antarctic Territories (TAAF), Heard Island and the McDonald Islands (2003 Treaty), (2005) ATS 6.

⁶³ 2003 Treaty, Articles 3(3), 3(5), 5(1)(a) and Annex II.

⁶⁴ 2003 Treaty, Articles 1 and 3.

⁶⁵ 2003 Treaty, Article 4.

⁶⁶ Gullett et al, above n.27, 560

⁶⁷ 2007 Agreement on Cooperative Enforcement of Fisheries Laws between the Government of Australia and the Government of the French Republic in the Maritime Areas Adjacent to the French Southern and Antarctic Territories, Heard Island and the McDonald Islands (2007 Treaty), (2007), ATNIF 1.

alleged FFVs in each other's adjacent EEZs.⁶⁸ Setting aside the clear practical advantages of the 2003 and 2007 treaties in enhancing cooperative maritime surveillance and enforcement for Australia and France in the Southern Ocean, the treaties provisions on hot pursuit raise a number of questions concerning their consistency with relevant LOSC provisions. Key provisions in the 2003 and 2007 treaties authorize each State's enforcement vessels to maintain hot pursuits through each other's maritime zones in the area of cooperation including through each other's territorial seas.⁶⁹ Article 111(3) of the LOSC provides that the right of hot pursuit ceases as soon as the ship pursued enters the territorial sea of its own or a third State. A literal reading of this provision would appear to preclude French enforcement vessels or Australian enforcement vessels from continuing a hot pursuit through the other's territorial sea. In support of the legitimacy of the 2003 and 2007 treaty provisions on hot pursuit, however, is the argument that the treaty partners have consented to the continuation of such a hot pursuit and the pursuing vessel would not therefore be infringing on the sovereignty of the coastal State. The critical question in any subsequent prosecution of a FFV, however, would be whether a hot pursuit through the territorial sea of a third State is consistent with Article 111(3) of the LOSC and whether it could be challenged as an invalid exercise of the right of hot pursuit by the flag State of the pursued vessel. Notwithstanding this legal ambiguity, the measures taken by Australia in cooperation with France over recent years to counter illegal fishing in the Southern Ocean appear to have resulted in successful deterrence of illegal fishers in this area of Australia's maritime jurisdiction.

The resurgence of people smuggling in the water gap between Indonesia and Australia in 2008 and 2009 heightened the need for continued and enhanced cooperation between Australia and Indonesia to apprehend vessels carrying asylum seekers and to investigate and prosecute offenders.⁷⁰ Addressing this challenge entailed both maritime and terrestrial dimensions. The forum nominated to achieve that objective was the Bali Process on People Smuggling, Trafficking in Persons and Related Transnational Crime, co-chaired by Australia and Indonesia, and involving more than 50 countries from the Asia Pacific region and beyond as well as international organizations such as the UN High Commissioner for Refugees and the International Organization for Migration.⁷¹ The inception of the Bali Process in February

⁶⁸ 2007 Treaty, Articles 3 and 4.

⁶⁹ Gullett et al, above note 66.

⁷⁰ Parliamentary Library, *Budget 2009-10: Immigration. Border Protection and combating people smuggling*, http://www.aph.gov.au/library/Pubs/RP/BudgetReview2009-10/Immigration_BorderProtect.htm.

⁷¹ Bali Process, <http://www.baliprocess.net/>.

2002 was in response to a spike in people smuggling operations between Indonesia and Australia.⁷² In its first few years, the Bali Process established a range of multilateral initiatives between member countries to combat people smuggling which involved operational and policy officials from police, immigration, justice and development agencies.⁷³ Many of these initiatives were centred on implementing the Protocol against the Smuggling of Migrants by Land Sea and Air supplementing the UN Convention against Transnational Organized Crime (People Smuggling Protocol) which is intended to prevent and combat people smuggling as well as promoting cooperation among States Parties to protect the rights of smuggled migrants.⁷⁴ The early momentum of the Bali Process, with two ministerial meetings in 2002 and 2003 and a series of regional capacity building activities produced some very positive results including enhanced police to police cooperation, people smuggling legislation in some countries which previously had not criminalised this conduct and improved border control and document identification systems.⁷⁵ The initial enthusiasm for the people smuggling aspects of the process diminished from 2004, however, as people smuggling voyages between Indonesia and Australia lessened and the focus of the process focused more on measures to combat trafficking in persons.⁷⁶

The Bali Process was re-invigorated at a third Ministerial meeting held in April 2009 where the Co-Chairs statement re-emphasized the original objectives of the Process and acknowledged some additional incentives for the resurgence of people smuggling including the global financial crisis and the intensification of conflicts within and beyond the region.⁷⁷ The Ad Hoc groups formed to implement earlier Bali Process initiatives have been re-established and tasked with developing practical outcomes at the operational level to assist countries in mitigating increased irregular population movements, enhancing information sharing agreements between most affected countries and reporting back to the Co-Chairs of the Process with concrete recommendations to inform future regional cooperation on people smuggling and trafficking in persons.⁷⁸ One area that the Bali Process has not yet addressed is the possibility of cooperative maritime surveillance and enforcement agreements between

⁷²Bali Process, About the Bali Process, <http://www.baliprocess.net/index.asp?pageID=2145831401>

⁷³ Ibid.

⁷⁴ Protocol against the Smuggling of Migrants by Land, Sea and Air Supplementing the United Nations Convention against Transnational Organized Crime (People Smuggling Protocol), (2004) ATS 11.

⁷⁵ See above note 71.

⁷⁶ Ibid.

⁷⁷ Bali Process, Co-Chairs Statement Third Regional Ministerial Conference on People Smuggling, Trafficking in Persons and Related Transnational Crime, Bali Indonesia, 14-15 April 2009, http://www.baliprocess.net/files/CO%20Chairs%20Statement%20BRMC%20III_FINAL.doc

⁷⁸ Ibid., paragraphs 26-28.

neighbouring countries to detect and apprehend people smuggling boats. Precedents for this type of cooperation exist in the illegal fishing arena between Australia and France in the Southern Ocean and between some Pacific Island States under the Niue Treaty.⁷⁹ The Bali Process has now entered a more mature phase in which it appears that it will go beyond fundamental capacity building and prevention to developing specific measures to address people smuggling problems at the request of the most affected States.⁸⁰ A tailored solution for cooperative detection and apprehension of people smuggling boats between Indonesia and Australia is a potential product of this re-invigorated Process in the future.

At a global level, Australia has also contributed to counter piracy operations in the Horn of Africa region which underpin the freedom of access of all vessels to transit these parts of the ocean unimpeded. A surge in piracy and armed robbery against shipping off the Horn of Africa in late 2008 by Somali pirates prompted unparalleled cooperation between concerned States who despatched warships to patrol the Gulf of Aden and waters off the coast of Somalia.⁸¹ In 2008 there was a large increase in piracy and armed robbery attacks against ships transiting the Horn of Africa region with 111 attacks against ships and 42 successful hijackings.⁸² The trend continued in 2009 and 2010 with 47 successful hijackings in 2009 and 49 in 2010 and the range of the pirates extending beyond the coast of Somali and the Gulf of Aden into the Western Indian Ocean. The piracy incidents included attacks on a wide array of vessels ranging from traditional dhows, yachts and fishing trawlers to super tankers, passenger cruisers and other large trading vessels.⁸³

The global response to the piracy incidents off the Horn of Africa encompassed a variety of measures including a series of Security Council Resolutions passed under Chapter VII of the United Nations Charter authorizing member States of the UN to act against the piracy attacks. Warships from Australia joined the global response.⁸⁴ In January 2009, the United States established Combined Task Force (CTF) 151 which included a warship from the Australian

⁷⁹ Niue Treaty on Cooperation in Fisheries Surveillance and Law Enforcement in the South Pacific Region (Niue Treaty) (1993) ATS 31.

⁸⁰ See above note 77, paragraphs 25-26.

⁸¹ NATO Parliamentary Assembly, "The Growing Threat of Piracy to Regional and Global Security", Committee Report 169 CDS 09 E, 2009 Annual Session, paragraph 72, <http://www.nato-pa.int/Default.asp/SHORTCUT=1770>.

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Ibid.

Navy on an as required basis.⁸⁵ The naval response to piracy off the Horn of Africa assisted in maintaining a degree of maritime security and freedom of access for shipping in the region.

Maintenance of regional and global maritime security as well as security and integrity of resources in Australia's own offshore zones will require ongoing extension and development of existing frameworks for cooperative maritime surveillance and enforcement across national boundaries and on the high seas. Future maritime challenges for Australia in conjunction with global and regional partners may include surveillance and enforcement operations related to high seas fishing of highly migratory stocks and straddling stocks and collaborative monitoring of other high seas activities such as marine genetic resource exploitation, climate change mitigation activities and dumping operations by ships in order to prevent adverse impacts on high seas biodiversity and maintain high seas resources for current and future generations.

Antarctica

The protection of the Antarctic environment has been a prominent feature in the evolution of the Antarctic treaty system.⁸⁶ As a relatively pristine marine environment, Antarctica is viewed as an important global reference point for scientific research on the effects of pollution on marine ecosystems.⁸⁷ Although relatively low in species diversity, Antarctic marine areas support high populations of marine living resources such as plant plankton, krill and baleen whales.⁸⁸ The close interdependence of these species reduces their resilience to over exploitation and highlights the fragile nature of Antarctic marine ecosystems.⁸⁹ Notwithstanding the ambiguities inherent in the political and legal status of Antarctica, the Antarctic Treaty partners have cooperated in the development of a comprehensive

⁸⁵ Ibid, paragraphs 64 and 67.

⁸⁶ Donald R. Rothwell, "Southern Ocean Bioprospecting and International Law" in Alan D. Hemmings and Michelle Rogan-Finnemore (eds.), *Antarctic Bioprospecting* (Gateway Antarctica Special Publication Series, University of Canterbury, 2005), p. 209.

⁸⁷ Catherine Redgwell, "The Protection of the Antarctic Environment and the Ecosystem Approach" in M. Bowman and C. Redgwell (eds.), *International Law and the Conservation of Biological Diversity* (Kluwer Law International, The Hague, 1996), p.110; Jacques Yves Cousteau and Bertrand Charrier, "Introduction: The Antarctic, A Challenge to Global Environment Policy" in Joe Verhoeven, Philippe Sands and Maxwell Bruce (eds.), *The Antarctic Environment and International Law* (Graham and Trotman Ltd, London, 1992), p.6.

⁸⁸ Redgwell, above note 87, pp.109-110; Beth Marks Clark and Karen Perry, "The Protection of Special Areas in Antarctic" in Francesco Francioni and Tullio Scovazzi (eds.), *International Law for Antarctica* (2nd Ed.) (Kluwer Law International, The Hague, 1996), p.295.

⁸⁹ Redgwell, above note 87, p.110; Davor Vidas, "Protecting the Polar Marine Environment: Interplay of Regulatory Frameworks" in Davor Vidas (ed.), *Protecting the Polar Marine Environment*, (Cambridge University Press, Cambridge, 2000) p.11; Cousteau and Charrier, above note 87 pp.5-6.

environmental protection regime which applies to marine areas both within and beyond national jurisdiction.

The 1991 Madrid Protocol was the first comprehensive environmental protection instrument to apply to the whole of the Antarctic Treaty area including the land mass and sea.⁹⁰ The Preamble, Objective and Environmental Principles, in Articles 2 and 3 of the Protocol, reflect the fundamental approach of the Antarctic Treaty partners as one of stewardship and conservation of the Antarctic environment for current and future generations. Although the Protocol was adopted prior to the negotiation of the CBD, it does contain elements which reflect a similar integrated approach to the protection of the Antarctic environment.⁹¹ The interdependence of Antarctic ecosystems is recognised in Article 2 which commits the parties to the comprehensive protection of the Antarctic environment and dependent and associated ecosystems. The requirement for environmental impact assessment of activities undertaken in Antarctica is also firmly embedded in Article 8 of the Protocol. Under this Article, Parties are required to apply the environmental impact assessment procedures contained in Annex I to the Protocol to scientific research programs, tourism and all other governmental and non-governmental activities in the Antarctic Treaty area for which notice is required under Article VII(5) of the Treaty.⁹²

A Committee for Environmental Protection (CEP) was created under the Protocol.⁹³ It provides advice to the Parties on implementation of the Protocol but key decisions on environmental protection are still the province of the Antarctic Treaty Consultative Meeting (ATCM) which occurs annually.⁹⁴ Parties are required to undertake regular and effective monitoring of the impact of ongoing activities on the Antarctic marine environment and

⁹⁰ 1991 Protocol on Environmental Protection to the Antarctic Treaty (1991) (Madrid Protocol), 30 ILM 1455, Art. 2.

⁹¹ Redgwell, above note 87, p.128

⁹² Madrid Protocol, Art 8(2). Annex I to the Protocol contains very detailed requirements for a three tier system of environmental impact assessment of activities in the Antarctic Treaty area - preliminary assessments of activities having less than a minor or transitory impact, initial environmental evaluation of activities likely to have no more than a minor or transitory impact and comprehensive environmental evaluations of activities likely to have more than a minor or transitory impact which are considered by the Antarctic Treaty Consultative Parties meetings (ATCM); Kees Bastmeijer and Ricardo Roura, "Environmental Impact Assessment in Antarctica" in Kees Bastmeijer and Timo Koivurova (eds.), *Theory and Practice of Transboundary Environmental Impact Assessment* (Martinus Nijhoff Publishers, Leiden, 2008), p. 177.

⁹³ Madrid Protocol, Art. 11.

⁹⁴ Madrid Protocol, Art. 12; Lawrence Cordonnery, "Environmental Protection in Antarctica: Drawing Lessons from the CCAMLR Model for the Implementation of the Madrid Protocol" (1998) 29 *Ocean Development and International Law* p.139 analyses the weaknesses in the CEP's advisory role and advocates a stronger monitoring function for the CEP.

dependent and associated ecosystems.⁹⁵ They must also submit annual reports on their implementation of the Protocol to the CEP.⁹⁶ The collaborative nature of activities in the Antarctic Treaty area is emphasised in Article 6 of the Protocol which obligates Parties:

- To cooperate in programs to protect the marine environment;
- To undertake joint expeditions and share facilities to avoid the cumulative effect of multiple human activities in any location; and
- To assist each other with environmental impact assessments of proposed activities.

The Madrid Protocol has five Annexes on Environmental Impact Assessment (Annex I), the Conservation of Antarctic Flora and Fauna (Annex II), Waste Disposal and Waste Management (Annex III), the Prevention of Marine Pollution (Annex IV) and Area Protection and Management (Annex V). Annexes II and V most closely parallel the integrated environmental protection measures contained in the protected species programmes and protected areas protocols of the other regional seas arrangements. Under Annex II, the taking of or harmful interference with native birds, mammals and plants in the Antarctic Treaty area without a permit is prohibited.⁹⁷ Annex II also makes provision for specially protected species.⁹⁸ This Annex has only limited application to marine living resources in the Antarctic Treaty area as these are governed by the 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR).⁹⁹

Annex V complements Annex II by providing for the establishment of a two tiered system of Antarctic Specially Protected Areas (ASPAs) and Antarctic Specially Managed Areas (ASMAs).¹⁰⁰ Under Article 3(1) of Annex V, any area including marine areas may be designated as an ASPA to protect outstanding environmental, scientific, historic, aesthetic or wilderness values, any combination of those values or ongoing or planned scientific research.

⁹⁵ Madrid Protocol, Art. 3(2)(d); Bastmeijer and Roura, above note 92, p.191.

⁹⁶ Madrid Protocol, Art. 17; Vidas, above note 89, p.55

⁹⁷ Madrid Protocol, Annex II, Art. 3(1).

⁹⁸ Madrid Protocol, Annex II, Art. 3(4).

⁹⁹ 1980 Convention on the Conservation of Antarctic Marine Living Resources (CCAMLR) (1980) 19 ILM 837.

¹⁰⁰ Madrid Protocol, Annex V, Arts. 3 and 4.

Criteria for inclusion in the series of ASPAs reflect biodiversity concepts such as the conservation of representative examples of marine ecosystems and the type, locality or only known habitat of any species.¹⁰¹ Entry to an ASPA is prohibited except in accordance with a permit.¹⁰² The second type of area regulated by Annex V is the ASMA which includes both land and marine areas.¹⁰³ The designation of an ASMA is designed to assist in the planning and coordination of activities in the area, avoid possible conflicts, improve cooperation between the Parties and minimise environmental impacts.¹⁰⁴ These areas may be designated where activities pose risks of mutual interference or cumulative environmental impacts and where there are any sites or monuments of recognised historic value.¹⁰⁵ Entry into ASMAs does not require a permit but these areas may contain one or more ASPAs where entry is prohibited without a permit.¹⁰⁶ Any Party, the CEP, the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) or the Scientific Committee for Antarctic Research (SCAR) may propose an area for designation as an ASPA or ASMA to the ATCM.¹⁰⁷ The areas which have so far been designated as ASPAs and ASMAs under the Annex V system cluster around the coast of the Antarctic continent with a few areas surrounding offshore islands.¹⁰⁸

While the highly regulated system of ASPAs and ASMAs provides an example of multilateral collaboration in marine environmental protection, which is well adapted to coastal areas, CCAMLR has made more progress in establishing marine protected areas (MPAs) in high seas areas within its area of responsibility south of the Antarctic convergence. In 2009, CCAMLR established a high-seas MPA, the South Orkney Islands southern shelf MPA, in a region covering 94 000 km² in the south Atlantic. This was followed by a decision at the 2016 CCAMLR annual meeting to designate a further MPA in the Ross Sea covering 1.55 million km². The new MPA, which will enter into force in December 2017, will limit, or entirely prohibit, certain activities in order to meet specific conservation, habitat protection, ecosystem monitoring and fisheries management objectives.

¹⁰¹Madrid Protocol, Annex V, Art. 3(2)(b)(c) and (d).

¹⁰²Madrid Protocol, Annex V, Art. 3(4).

¹⁰³Madrid Protocol, Annex V, Art. 4(1).

¹⁰⁴Madrid Protocol.

¹⁰⁵Madrid Protocol, Annex V, Art.4(2).

¹⁰⁶Madrid Protocol, Annex V, Art. 4(3) and (4).

¹⁰⁷Madrid Protocol, Annex V, Art. 5(1).

¹⁰⁸ CEP, List of Antarctic Protected Areas and List of Historic Sites and Monuments, <http://www.cep.aq/apa/aspa/index.html> and <http://www.cep.aq/apa/asma/index.html>

Seventy-two percent of the MPA will be a 'no-take' zone, which forbids all fishing, while other sections will permit some harvesting of fish and krill for scientific research.¹⁰⁹

A key weakness of the Antarctic Treaty marine environmental protection regime is the inability to enforce its provisions against vessels of third party States in marine areas beyond national jurisdiction within the Antarctic Treaty area. Even between parties, enforcement of the Madrid Protocol and its Annexes is principally dependent on national measures.¹¹⁰ There is a reciprocal system of inspection by Parties observers of ships and aircraft operating in the Antarctic Treaty area which reports to the ATCM but the only sanction for non-compliance is publication of any transgressions by the meetings.¹¹¹ Effective implementation of future integrated environmental protection measures in marine areas beyond national jurisdiction within the Antarctic Treaty area would be strengthened by the introduction of collaborative compliance monitoring and enforcement measures similar to those which have been adopted by some of the RFMOs and more severe penalties for non-compliance. The Antarctic environmental protection system reflected in the provisions of both the Madrid Protocol and CCAMLR is one of the few examples of an integrated marine environmental protection system managed by a compact of States in a particular oceanic region beyond national jurisdiction,

CCAMLR was established under the 1980 Convention for the Conservation of Antarctic Marine Living Resources as an integral element of the Antarctic Treaty system. It has a mandate to conserve and manage all marine living resources, except whales and seals, in the area south of 60 degrees south latitude and in the area between 60 degrees south latitude and the Antarctic Convergence.¹¹² The vast majority of this area lies beyond national jurisdiction except for offshore maritime zones adjacent to the territorial claims of some Antarctic Treaty partners on the Antarctic continent and waters within the offshore maritime zones of some sub Antarctic islands in the Southern Ocean claimed by Australia, France, South Africa and

¹⁰⁹ CCAMLR, Media Release, <https://www.ccamlr.org/node/92518>

¹¹⁰ Madrid Protocol, Art. 13(1).

¹¹¹ Madrid Protocol, Annex V, Art. 14; Redgwell, above note 87, p.125.

¹¹² CCAMLR Convention, Art. 1(1). The Antarctic Convergence is also known as the Antarctic Polar Front and is situated at about 50 degrees south latitude where the colder fresher waters flowing north from the Antarctic meet the warmer saltier waters flowing south from the Atlantic and Pacific Oceans. Whales and seals are covered by the 1946 International Convention for the Regulation of Whaling and the 1972 Convention for the Conservation of Antarctic Seals.

the United Kingdom.¹¹³ CCAMLR's conservation and management responsibilities extend beyond fish species to molluscs, crustaceans and birds found south of the Antarctic Convergence.¹¹⁴ The Convention explicitly adopts a precautionary and ecosystem based approach to marine living resource management which recognises the complex interconnections between all parts of the Antarctic ecosystem.¹¹⁵ Its conservation and management objectives were ambitious portents of environmental protection principles endorsed by the international community over a decade later in the Oceans Chapter of Agenda 21 which was key product of the 1992 United Nations Conference on Environment and Development.

Article II(3) of the Convention sets out the various elements of CCAMLR's conservation and management approach which allows for rational use of marine living resources in accordance with strict conservation principles. The three key conservation principles which apply to harvesting of marine living resources and associated activities are:

- prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment. For this purpose its size should not be allowed to fall below a level close to that which ensures the greatest net annual increment;
- maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in sub-paragraph (a) above; and
- prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not potentially reversible over three or four decades taking into account the state of available knowledge of the direct or indirect impact, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes

¹¹³ Rosemary Rayfuse, *Non Flag State Enforcement in High Seas Fisheries* (Martinus Nijhoff Publishers, Leiden, 2004), p.261. These islands include Heard and McDonald Islands belonging to Australia, Kerguelen and Crozet Islands belonging to France, Prince Edward and Marion Islands belonging to South Africa and South Sandwich Islands and Shag Rocks belonging to the United Kingdom. These islands have been exempted from the application of CCAMLR.

¹¹⁴ CCAMLR Convention, Art 1(2).

¹¹⁵ CCAMLR Convention, Art. II(3); Denzil G. Miller, Eugene N. Sabourenkov and David C. Ramm, "Managing Antarctic Marine Living Resources: The CCAMLR Approach" (2004) 19(3) *The International Journal of Marine and Coastal Law* p.319; Stuart B. Kaye, *International Fisheries Management* (Kluwer Law International, The Hague, 2000) p.368.

with the aim of making possible the sustained conservation of Antarctic marine living resources.

Since its inception in 1982, CCAMLR has adopted a variety of innovative measures to implement its ecosystem based approach to conservation. These include banning destructive fisheries practices such as bottom trawling for particular fish species in the CCAMLR Area, mandating measures to reduce incidental seabird mortality caused by baited hooks in long line fishing, monitoring the effects of fishing on non-target species by collection of data on CCAMLR member state fishing vessels and prohibiting fishing for certain species by CCAMLR member State fishing vessels where the risk to by catch species is thought to be too great.¹¹⁶ A weakness in the implementation of CCAMLR conservation measures is the requirement for consensus in decisions on matters of substance such as conservation measures.¹¹⁷ Conservation measures are binding on all members of the Commission 180 days after their notification except that members may notify the Commission that they cannot accept a measure within 90 days of its notification.¹¹⁸ There is provision for the Commission to review conservation measures where a member has notified its non-acceptance of a measure and a further opportunity for members to notify their non- acceptance of a measure within 30 days of a review meeting being held.¹¹⁹ Despite consensus requirements and contentious meetings, commentators are generally agreed that CCAMLR has had some success in implementing the most advanced interpretation of an ecosystem based approach to marine living resource management in its Convention area.¹²⁰

A major inhibiting factor to the effectiveness of CCAMLR's conservation measures, however, has been its inability to regulate the activities of fishing vessels of non-member States.¹²¹ It adopted a standard suite of fisheries management measures until the mid-1990s relying on flag State implementation of conservation and management measures supplemented by fisheries data reporting, at sea and in port inspections by member States of fishing vessels and their catch and tracking the movement of member States fishing vessels through vessel monitoring systems and notification of vessel movements.¹²² The higher

¹¹⁶ Miller et al, above note 115, pp.323-344;

¹¹⁷ CCAMLR Convention, Art. XII(1).

¹¹⁸ CCAMLR Convention, Art. IX(6)(b) and (c).

¹¹⁹ CCAMLR Convention, Art. IX(6)(d).

¹²⁰ Miller et al, above note 115, p.320; Kaye, above note 115, p.408.

¹²¹ Rayfuse, above note 113, p.267.

¹²² Miller et al, above note 115 p.336.

incidence of illegal unreported and unregulated (IUU) fishing in the CCAMLR Convention Area, particularly for Patagonian toothfish, from the mid 1990s prompted CCAMLR's resort to trade related sanctions on a global basis.¹²³ In 2000, CCAMLR introduced a Catch Documentation Scheme (CDS) which prohibited entry into world markets of Patagonian toothfish without verified catch documents.¹²⁴ The scheme has attracted the participation of non member States and applies to toothfish fishing by member States vessels and non member States vessels.¹²⁵ In a relatively short period, the CDS has extended its coverage to more than 90% of the world's toothfish trade and reduced the profitability of this type of IUU fishing.¹²⁶ The scheme requires flag State authorisation for toothfish fishing both within and outside the CCAMLR Convention area. The scheme has also assisted in establishing global estimates of toothfish catch.¹²⁷ The principal advantage CCAMLR has over other RFMOs in implementing environmental protection principles in the Convention Area is the mandate in the CCAMLR Convention to apply an integrated management approach to the conservation of marine living resources. This advantage has been enhanced by innovative methods of monitoring and enforcing compliance with its conservation measures by parties and non parties to the CCAMLR Convention. In a more globally integrated system of environmental protection for marine areas beyond national jurisdiction, CCAMLR would be a prime example of best practice in ecosystem based conservation and management of marine living resources for other RFMOs and regional marine environmental protection bodies, such as the regional seas arrangements.

Conclusion

This report has examined various aspects of Australia's and the Antarctic Treaty system's interactions with the global ocean governance agenda. It has reviewed Australia's implementation of some provision of the LOSC and its engagement with regional fisheries management organisations and regional seas organisations as well as its participation in the UNGA mandated process to develop the elements of an international binding legal agreement on conservation and sustainable use of marine biodiversity beyond national jurisdiction. Australia faces a complex and multifaceted set of challenges to achieve the objectives of

¹²³ Kaye, above note 115, p.439; Miller et al, above note 115, pp.336-337.

¹²⁴ Miller et al, above note 115, p.337.

¹²⁵ Ibid, p.338.

¹²⁶ Ibid, pp.337-338.

¹²⁷ Ibid.

integrated and ecosystem based management for marine areas within and beyond Australian national jurisdiction and global and regional maritime security set out in its Ocean Policy Statement of 1998. These challenges are inextricably involved with the global oceans governance agenda and entail close engagement with a variety of regional and global organizations. The report has outlined a range of examples in which Australia has joined with global and regional partners to address challenges such as the conservation of straddling and highly migratory fish stocks, the conservation and sustainable use of marine biodiversity and the maintenance of maritime security in its immediate region and beyond. These challenges will require ongoing commitment as the global oceans governance agenda fluctuates and evolves. As an island continent with an extensive coastline, significant offshore territories and enormous areas of ocean under its national jurisdiction the task of protecting Australia's national interests at sea is constant and daunting in its complexity. Maintaining border security and combating the poaching of Australia's fisheries by foreign fishing vessels have been the focus of significant Government policy initiatives, resource investment and legislative action in the years since Australia's Oceans Policy was issued. While these challenges will continue to absorb Australian Government resources for the foreseeable future, positive developments have also occurred in regional cooperative maritime surveillance and development with neighbouring States such as France in the Southern Ocean and the small island developing states of the Pacific.

At the global level, Australia has been supportive of the UN General Assembly process to develop the elements of an international legally binding treaty to conserve and sustainably use marine biodiversity areas beyond national jurisdiction. It has powerful national imperatives for supporting improved conservation and management of high seas resources and biodiversity. There is also a strong economic incentive for Australia to support conservation and sustainable use of highly migratory species such as tuna and other fish stocks which straddle high seas areas and Australia's offshore resource zones. Since the extension of coastal state resource jurisdiction to 200 nautical miles offshore under the LOSC, distant water fishing fleets have concentrated much of their effort in areas immediately adjacent to the exclusive economic zones (EEZs) of coastal states such as Australia. This has led to over exploitation of many straddling and highly migratory fish stocks which spend part of their life cycles in these areas. Australia's efforts to conserve and manage these stocks in its own EEZ are destined to fail without compatible measures being taken in high seas areas. Australia also has a long standing interest in conservation of species

that migrate through high seas areas. The South Pacific region has one of the highest quotients of biodiversity in the world with a large population of rare and endangered species such as whales, dolphins, sea turtles and dugongs whose migratory routes straddle high seas areas and Australia's offshore zones. These species are subject to multiple stress factors including unsustainable fisheries practices, ship strikes and noise and other forms of pollution from high volumes of shipping traffic. As one of the key maritime nations in the southern hemisphere and a prominent middle power, Australia in conjunction with its regional neighbours has an important role to play in evolving the global ocean governance framework.

The perspective of States involved in the Antarctic treaty system on the global ocean governance agenda is somewhat different as the fundamental objective of the Antarctic Treaty is to maintain the terrestrial and marine areas of Antarctica as a peaceful zone devoted to scientific research. This objective is however consistent with many of the goals of the global ocean governance agenda including the conservation and sustainable use of marine biodiversity, the freedom of marine scientific research and the maintenance of global and regional maritime security. CCAMLR's experiences in developing integrated and ecosystem based management of marine living resources south of the Antarctic convergence is the most closely related aspect of the Antarctic treaty system to the global ocean governance agenda. The advent of a new international legally binding treaty on conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction may be a portent for closer cooperation in the future between the Antarctic treaty system and other global and regional organizations involved in the global ocean governance.